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Part 1 of this document is a guide for writing instructional objectives based on Bloom's taxonomy. Included are examples and exercises designed to familiarize the teacher with the three behavior categories--cognitive, affective, and psychomotor domains--and to provide practice in identification of institutional, instructional, and behavioral variables and measurement techniques for each objective. Part 2 introduces the Instrument for Teacher Self-Appraisal (to be used in coding and analyzing video tape replays of classroom behavior), a checklist for classifying nine types of teacher cognitive and affective objectives, 14 types of teacher verbal and nonverbal expressions, and eight different teacher methods. Part 3, "Techniques of Assisting Teacher Self Appraisal (Utilizing Video Instant Replay TV)," provides (1) suggestions for developing the collaborative relationship between teacher and cooperator (the professional person who assists the teacher in the self-appraisal process--often also the technician who does the video-taping) and (2) outlines the 12-hour video inservice training program for which these materials were developed. Included also are suggestions for video tapers. Appendixes provide (1) definitions of instructional and institutional variables, (2) examples of program goals and objectives in several different subject fields, and (3) explanations of 42 categories in the taxonomy (cognitive and affective domains). (JS)

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"HELPING TEACHERS HELP THEMSELVES"

V.I.P. VIDEO INSERVICE PROGRAM (ESEA TITLE III)

TEACHER GUIDE FOR SELF-APPRAISAL

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Video Inservice Program Personnel Back Cover

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INTRODUCTION

This guide was developed to assist teachers in self-appraisal. The first edition, printed for pilot use in 1968, has now been revised and hopefully will provide more clearly guidelines for self-appraisal.

The guide incorporates the work of the EPIC Evaluation Center located at Tucson, Arizona which in turn acknowledges the work of Benjamin Bloom, David Krathwohl, Robert Mager, Wayne Roberson, and Elbert Brooks. The writer modifies with permission of the EPIC Evaluation Center, via Dr. Wayne Roberson, their material and adds to it the results of the research he has conducted.

Special acknowledgement and appreciation is extended to the teachers and administrators of Seward, York, Saline, Fillmore, and Lancaster Counties in which this innovative study is being carried out.

Following the pilot project the Nebraska State Department of Education and the United States Office of Education added their support through a Title III Grant. This grant enabled us to secure additional personnel to further the work of teacher self appraisal.

Robert Klabenes, Coordinator of the Title III Project, Carl Spencer and Tom Hill have made invaluable contributions in the short time they have been with the project. It is through their efforts this revision is made possible.

PREFACE

Guide for Writing Objectives

"If you're not sure where you're going, you're liable to end up someplace else - and not even know it."

The following materials have been prepared in order that you may practice writing where you are going. The EPIC Evaluation Center, Tucson, Arizona, acknowledges the work of Robert F. Mager, Benjamin S. Bloom, and others for their contribution toward understanding objectives.

This guide has been divided into three parts. Part I introduces objectives that utilize Bloom's Taxonomy. It includes examples which suggest a means for classifying objectives according to three behavior categories - cognitive, affective and psychomotor domains. It also suggests that objectives could be written for various levels of behavior within the domains. It attempts to assist in the writing of educational goals, educational objectives, and instructional objectives.

Part II introduces the Instrument for Teacher Self-Appraisal and attempts to assist in the use of the instrument.

Part III allows the teacher to apply what she has learned in Parts I and II. And special emphasis is placed on the techniques that can be used to assist teachers in self-appraisal.

Part IV briefly acquaints the teacher with the video instant replay media and the simple operation of the apparatus.

Appendix A - Gives detailed definitions of the Instructional and Institutional Variables.

Appendix B - Gives examples of Program Goals and Objectives

Appendix C - Gives detailed explanations of the Categories within the taxonomy

PART I

OBJECTIVES

Resource Texts for This Unit:

Bloom, Benjamin S., et al., Taxonomy of Educational Objectives. (Handbook I: Cognitive Domain) New York: David McKay Company, 1956.

Krathwohl, David R., Bloom Benjamin S., Masia, Bertram, Taxonomy of Educational Objectives. (Handbook II: Affective Domain), New York: David McKay Company, 1964.

Simpson, Elizabeth Sane, "The Classification of Educational Objectives, Psychomotor Domain", Illinois Teacher of Home Economics, Vol. X, No. 4, Winter 1966-67.

Mager, Robert F., Preparing Instructional Objectives, Fearon Publishers, Palo Alto, California, 1962.

A Look at the Taxonomy of Educational Objectives

The following material is presented to familiarize you with definitions and terms within the cognitive, affective, and psychomotor domains of behavior. Bloom, Krathwohl, and Simpson recognize three behavior categories:

1. Cognitive Domain: includes those objectives which deal with the recall or recognition of knowledge and the development of intellectual abilities and skills

2. Affective Domain: includes those objectives which describe changes in interest, attitudes, and values, and the development of appreciations and adequate adjustment.

3. Psychomotor Domain: (tentative) includes those objectives which focus on motor activity, ability, and skills.

EXAMPLES

1. Indicate whether the following objectives are Cognitive (C), Affective (A), or Psychomotor (P).

   The student:

   a. answers a true-false test.
   b. writes his name correctly
   c. wants to be a doctor

   Answers: a. C; b. P; c. A

2. Classify this objective as primarily Cognitive, Affective, or Psychomotor.

   "The student will reflect his interest in the topic treated during the unit by subsequently selecting books pertinent to it during free reading periods."

   Answer: This is an Affective objective; that is, it has to do with interest.

3. Classify this objective:

   "Pupils will learn to translate correctly in English previously unseen short stories written in Russian."

   Answer: Cognitive

4. Classify this objective:

   "At the end of the unit everyone in the class will be able to identify the type of logical fallacy committed by writers in six complicated persuasive essays."

   Answer: Cognitive

5. Classify this objective:

   "The student will learn to ski down the practice slope, falling no more than once, and breaking no more than on bone."

   Answer: Psychomotor

Such a taxonomic analysis points up overemphasis on one domain. We will deal here only with the Cognitive Domain, which is divided into six levels of cognitive activity.

1. Knowledge - involves the recall of facts and specifics

2. Comprehension - the learner interprets or translates material without necessarily seeing its full implications.

3. Application - involves the use of abstractions in particular and concrete situations.

4. Analysis - involves separating a complex whole into its parts, until the relationship among the elements is made clear.

5. Synthesis - involves combining elements to form a new, original entity.

6. Evaluation - involves acts of decision-making, judging, or selecting.

EXAMPLES

1. When given a multiple-choice test containing ten important facts mentioned in the story "Station in Space," the student will correctly choose nine out of ten answers.

   Answer: Knowledge

2. Having read "Station in Space," the student will be presented with three paragraphs from the story. In each of these paragraphs there is one added sentence that does not relate to the rest of the paragraph. The student will, with 100% accuracy, underline the unrelated sentence in each of the three paragraphs.

   Answer: Application

3. When given three descriptions of the outward appearance of a space station, and asked to select the one described in the story, the student will choose the correct one.

   Answer: Evaluation

4. After reading the selection, the student will be able to organize the details of the story under these headings. Provision of Food, Shelter, Clothing, Air, Water.

   Answer: Analysis

5. When asked, the student will briefly describe, using diagrams or words, how the engineers will assemble the space station and provide for their immediate needs.

   Answer: Comprehension

6. After reading "Station in Space," the student will be able to write a fictional space station story with characters and their subsequent exploration adventures.

   Answer: Synthesis

AFFECTIVE DOMAIN

This is the most nebulous domain and deals with the classification of emotional and attitudinal behavior.

1. Receiving - the learner is aware of certain phenomena and stimuli, (i.e.. listening)

2. Responding - the learner reacts or attends to certain phenomena or stimuli (i.e., attitude, interest)

3. Valuing - the learner displays behavior consistent with a belief or attitude in situations where he is not forced to comply or obey.

4. Organization - the learner is committed to values, displayed by his behavior.

EXAMPLES

1. After reading and discussing the story the student will volunteer to debate (pro or con) the subject "Resolved: Stations in space are a prerequisite to future space exploration."

   Answer: Responding

2. Given the opportunity, the learner will achieve recognition (Nobel Prize, Who's Who, etc.) as a result of his contributions as a space scientist experimenting in outer space.

   Answer: Organization

3. After reading "Station in Space," the student will be aware of the vast changes which space travel may bring to our world.

   Answer: Receiving.

4. The student will demonstrate his belief in the necessity and value of wide reading by:

   a. electing to read more often than to engage in another activity during his spare class time.

   b. a 50% increase in the number of books read as reported on his chart.

   c. a 50% increase in the number of voluntary book reports he makes to the class.

   d. frequency of visits to his community library to select books.

   Answer: Valuing.

The Psychomotor Domain is concerned with the learner's physical activity or skill.

PRACTICE EXERCISES

Tell whether the following objectives are Cognitive, Affective, or Psychomotor.

1. The pupils will be able to sketch with charcoal a reasonably accurate representation of a windmill.

   Answer: Psychomotor.

2. The teacher wants her pupils to show improved vocabularies by selecting from multiple-choice alternatives the correct definitions for twenty words previsouly defined in class.

   Answer: Cognitive.

3. Students will fill out and return anonymously questionnaires designed to measure their attitudes toward minority groups.

   Answer: Affective

4. When presented with a previously unencountered problem in geometry, the student will display a creative solution by using already learned theorems in any manner which for him is unique, but at the same time, adequate to solve the problem.

   Answer: Cognitive

In conclusion, we could say that there is absolutely no reason why a behavioral objective should be trivial. The problem is one of stating more complex behaviors in a precise behavioral term.

TAXONOMY CLASSIFICATION QUIZ

DIRECTIONS: Classify each objective below by writing the correct letter in front of the objective according to the following scheme:

C Cognitive

A Affective

P Psychomotor

The learner:

_____ 1. is able to choose the best of two solutions to a geometry problem using standards given by the teacher

_____ 2. exhibits tolerance for others by displaying good manners toward those of minority groups.

_____ 3. lists the names and contributions of the five key curriculum workers as described in class.

_____ 4. properly knits a baby blanket

_____ 5. scores well on the Minnesota Teacher Attitude Inventory

_____ 6. uses instructional principles properly in planning daily lessons.

_____ 7. plays table tennis according to rules well enough to beat three inexperienced girls 100% of the time.

_____ 8. correctly recites the Gettysburg Address from memory.

_____ 9. scores 80% or better on a spelling quiz.

_____ 10. displays interest in higher mathematics by voluntarily attending lectures on this subject.

ANSWERS

1. C.
2. A.
3. C.
4. P.
5. A.
6. C.
7. P.
8. C.
9. C
10. A.

PART II

CRITIQUING GOALS AND OBJECTIVES

To facilitate the evaluation of a given educational program, the following guide is designed to assist you in writing goals and objectives. The Educational Service Unit No. 6 staff feels that clearly stated objectives are essential to evaluation.

The Educational Service Unit staff is presently utilizing the following terminology and format for the development of goals and objectives. The distinction between the term "goal" and the term "objectives" is primarily a matter of degree of clarity or specificity from one to the other. In other words, objectives are developed from goals, much as you would develop an outline. Below are listed some of the characteristics of goals and objectives considered to be important.

GOALS

1. Very broad and general statements.
2. Derived from the school's philosophy.
3. Open to many interpretations.

OBJECTIVES

1. Identify the institutional variable. (See Appendix A)
2. Identify the instructional variable. (See Appendix A)
3. Identify the behavioral variable.
4. Describe <u>how</u> the behavior will be <u>measured</u>.

This approach allows one to move from vague goals to objectives and observable behaviors. The following pages include:

1. practice in writing your philosophy and goals.
2. practice in critiquing objectives.
3. practice in writing objectives.
4. examples of goals and objectives.

WRITING GOALS

Goals generally develop out of an educational philosophy. At this point, attempt to state briefly your educational philosophy.

PHILOSOPHY

Remember that goals apply to the total educational experience and cross all subject areas and disciplines. Below are listed some samples of goals obtained from teachers:

EXAMPLES

Demonstrate improvement in scholastic achievement.
Increase understanding of mathematical terminology.
Improve fluency in oral reading.
Develop a positive attitude toward school.

Now, state briefly a goal related to your previously-stated philosophy.

GOAL

OBJECTIVES

The Educational Service Unit No. 6 staff makes the assumption that objectives are behavioral in that they identify a behavior to be exhibited, and describe how the behavior can be measured.

It needs to be emphasized that objectives are very important because they provide the necessary information for the evaluation of instructional programs. Unless they are (1) clear and concise, (2) realistic and fit the grade level, (3) attainable by instruction and capable of being measured and (4) concerned only with what is necessary for the course or unit, it is difficult to determine procedures to follow or sources of data to be utilized for evaluation.

CRITIQUING PROGRAM OBJECTIVES

Program objectives should clearly identify observable behaviors of the learner. Four criteria for writing and critiquing objectives are listed below.

Program objectives should include the following information:

1. What variable of the behavioral dimension is involved? (a) Affective, (b) Cognitive, (c) Psychomotor.

2. What variable of the instructional dimension is involved? (a) Organization, (b) Content, (c) Method, (d) Facilities, (e) Cost.

3. What variable of the institutional dimension is involved? (a) Student, (b) Teacher, (c) Administrator, (d) Educational Specialist, (e) Family, (f) Community.

4. How will the behavior variable be measured?

EXAMPLE A

Goal: To understand concepts of social studies.

Program Objective: The student will be able to apply selected concepts of the American Constitution as determined by his score on the Smith-Coulter Test.

1. behavioral variable - Cognitive (apply)

2. instructional variable - Content (American Constitution)

3. Institutional variable - Student

4. measurement - Smith-Coulter Test

EXAMPLE B

Goal: To develop improved student attitudes toward reading.

Program Objective: Through individualized instruction, the student will demonstrate his improved attitude toward reading as measured by his responses on the Iowa Reading Attitude Inventory.

1. behavioral variable - Affective (response)

2. instructional variable - Content (reading)

3. institutional variable - Student

4. measurement - Iowa Reading Attitude Inventory

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[1] See pages 1-4

[2] See Appendix A

[3] See Appendix A

INSTRUCTIONAL OBJECTIVES

Robert Mager has added another level of objectives, the instructional objective. The instructional objective differs from the program objective only in specificity of the behavioral and instructional variables. Also, the instructional objective is utilized by the classroom teacher in order to obtain immediate (day-to-day) feedback.

Read Mager's Preparing Instructional Objectives.

EXAMPLE

Goal: To understand the structure of the novel.

Program Objective: The student will demonstrate his comprehension of the structure of the novel by tracing the structure of the novel in a paper written outside of class with a predetermined number of errors.

Instructional Objective: Given the opportunity, the student will demonstrate his comprehension of the structure of the novel, Silas Marner, by writing a paper outside of class containing no typing errors and no more than three structure errors.

CRITIQUING OBJECTIVES

Utilizing the four criteria for critiquing objectives, indicate by numbers 1, 2, 3, or 4, the criteria that are not included in each of the ten statements below. Objective number 1 is used as an example. Notice that it does not include the necessary information to satisfy criteria 4

_____1. The student is to develop a working knowledge and a basic understanding of the history of electricity and magnetism in order that he will better understand the many forms of electricity.

_____ 2. The student is to develop understanding of the structure of the novel as applied to Silas Marner by tracing the structure of the novel in a paper written outside of class with no more than three errors.

_____ 3. The student is to develop knowledge of repairing an automotive generator so that he can describe correctly in writing all repair procedures when given a hypothetical situation concerning a defective generator.

_____4. The student will be expected to gain a basic knowledge of the three major causes of World War II. The three causes are expansionism, imperialism, and militarism. The student will be expected to understand the influences of the causes at the 70% level of accuracy.

_____ 5. The purpose of the unit on vocabulary development is to increase the vocabulary of the student by five new words each week by having him write the five new words and their definitions to be turned in on Friday of each week.

_____ 6. The student is to develop knowledge of the story pertaining to the Mexican independence. He will demonstrate this knowledge by being able to state the eight important points in writing from memory in fifteen minutes with no more than three errors.

_____ 7. The student is to develop an understanding of the history of drama so that he can write a paper describing the life of one playwright with no more than four mistakes.

_____ 8. The student is to develop skill in writing a biography of Cervantes in Spanish without the use of notes in fifty minutes.

_____ 9. To encourage the student to understand the writings of Shakespeare by giving lectures and leading discussions of the history and the customs of the times.

10. The student is to develop knowledge of the vocabulary used in The Merchant of Venice so that he can write the definitions of fifty words chosen from the play without the use of any aids in sixty minutes with no more than fifteen errors.

WRITING GOALS, PROGRAM OBJECTIVES, AND INSTRUCTIONAL OBJECTIVES

Now that you have been introduced to goals, program objectives, and instructional objectives, try your hand at writing a goal, a related program objective, and an instructional objective. Critique your objectives by including the four necessary criteria of the:

1. behavioral variable (pages 1-4).
2. instructional variable (Appendix A).
3. institutional variable (Appendix A).
4. measurement.

GOAL

PROGRAM OBJECTIVE

INSTRUCTIONAL OBJECTIVE

GOAL

PROGRAM OBJECTIVE

INSTRUCTIONAL OBJECTIVE

PART II

INSTRUMENT FOR TEACHER SELF-APPRAISAL

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LEARNING TO USE THE INSTRUMENT

The instrument for teacher self-appraisal is not difficult to use, if one follows the following steps sequentially. It is assumed that a teacher has had the necessary pre-service education and training.

Step I - Learn the Taxonomy of Educational Objectives Classifications Cognitive and Affective Domains

Step II - Learn the methods used by the instrument

Step III- Learn to identify the expression categories on the instrument

Step IV - Develop skill in identifying episodes on video tape and marking categories on the instrument.

The above can be accomplished with a minimum of six and a maximum of 12 hours instruction by a qualified instructor. The instruction should be conducted in four three-hour modules.

SAMPLE

UNIT #6 TEACHER SELF-APPRAISAL

OBJECTIVES			EXPRESSIONS	
COGNITIVE	AFFECTIVE	METHOD	VERBAL	NON-VERBAL
0 ⬭ KNOW	0 ⬭ RECEIVE	0 ⬭ (silence)	0 ⬭ DISAPPROVAL	0
1 ⬭ COMP	1 ⬭ RESPOND	1 ⬭ (confusion)	1 ⬭ UNRESPONSIVE	1 ⬭
2 ⬭ APPL	2 ⬭ VALUE	2 ⬭ LECTURE	2 ⬭ INATTENTIVE	2 ⬭
3 ⬭ ANAL		3 ⬭ QUEST-ANS	3 ⬭ ROUTINE	3 ⬭
4 ⬭ SYNT		4 ⬭ DEMONSTRATE	4 ⬭ RECEPTIVE	4 ⬭
5 ⬭ EVAL		5 ⬭ DIRECTION	5 ⬭ HELPING	5 ⬭
		6 ⬭ MASTERY	6 ⬭ SUPPORT	6 ⬭
		7 ⬭ PROB SOLV		
		8 ⬭ CLARIFY		
		9 ⬭ INQUIRY		

REVISED ROBERSON INSTRUMENT
Revision by Permission
of
Dr. Wayne Roberson

CATEGORY CLUES FOR SELF-APPRAISAL INSTRUMENT

Teacher Cognitive Objectives

1.	Knowledge	Teacher desires student to recall specific information.
2.	Comprehension	Teacher desires student to translate or interpret information without seeing its full implications.
3.	Application	Teacher desires student to use abstractions in new and concrete situations.
4.	Analysis	Teacher desires student to separate a complex whole into its parts, until the relationship among the elements is made clear.
5.	Synthesis	Teacher desires student to combine elements to form a new original entity.
6.	Evaluation	Teacher desires student to make value judgments involving external or internal criteria.

*For detailed explanation of the above categories see Appendix C.

Teacher Affective Objectives

1.	Receive	Teacher desires student to be aware or conscious of certain information.
2.	Respond	Teacher desires student to do something with or about information or idea.
3.	Value	Teacher desires student to see the worth of information or idea.

Teacher Verbal Expressions

1.	Supportive	Teacher praise.
2.	Helping	Teacher encouragement and assistance, clue giving.
3.	Receptive	Teacher acceptance of student statements

4.	Routine	Teacher verbal expressions that are a matter of form addressed to entire class.
5.	Inattentive	Teacher indicates impatience or disinterest thereby inhibiting flow of communication
6.	Unresponsive	Teacher openly ignores student's need, continues to verbalize
7.	Disapproval	Teacher admonishes, reprimands or threatens student.

Teacher Non-Verbal Expressions

1.	Supportive	Teacher visibly pats student on the arm indicating satisfaction that a job is well done.
2.	Helping	Teacher visibly assists in the performance of a task.
3.	Receptive	Teacher acceptance to individual student's response, request, or statement.
4.	Routine	Teacher acceptance to general class, response, request, or statement.
5.	Inattentive	Teacher pays no attention to student's request or is not aware of student's request for attention. (looking out window and does not see hands raised)
6.	Unresponsive	Teacher purposefully pays no attention to student's request (hand raised by student, teacher sees hand but avoids student).
7.	Disapproval	Teacher frowns or indicates by other non-verbal means that student action is not accepted.

Teacher Methods

1.	Lecture	Teacher verbally gives out information through teacher talk.
2.	Question-Answer	Teacher desires response from a direct question either from class or individual.
3.	Demonstrate	Teacher verbally and/or non-verbally, through his or her application of abstractions, depicts the information to be given.

4.	Direction	Teacher positively asks, assigns, or tells students to respond either as a group or individually.
5.	Mastery	Teacher utilizes drill or practice.
6.	Problem Solving	Teacher assists students and/or student to develop a pragmatic unsolved situation and then attempts to guide the student and/or students to present a defensible solution.
7.	Clarify	Teacher reinforces and further explains student responses.
8.	Inquiry	Teacher focus on <u>process</u> of solving a problem, rather than solution. Emphasis on exploration, no student responses rejected or criticized.

GROUND RULES FOR CODING TAPES

1. View a portion of tape to get general set.
2. Code one level in each of the following categories: Cognitive, Affective, Method, Verbal Expression, Non-verbal Expression.
3. Code the Method first, Affective, Cognitive, Verbal, and then Non-verbal.
4. Method is always on-going and never silent.
5. Silence only occurs when the teacher is purposefully silent.
6. If Method cannot be determined, check confusion for complete card.
7. If there is doubt on a category - check the first category, Knowledge. If <u>still</u> in doubt consult your Co-operator.
8. If enough cues are not given, play beyond the beep and then code.
9. If you prefer not to code silent verbal, code the last verbal behavior.

PART III

Techniques in Assisting Teacher Self-Appraisal

(Utilizing Video Instant Replay T.V.)

by Kenneth E. Shibata

No single effort or short term training can provide the skills, theoretical wisdom, and insight one needs to become effective in assisting teachers with self-appraisal.

However, the following suggestions should assist those who are interested, develop a deeper appreciation of the professional standards one must meet in order to achieve a reasonable amount of acceptance from a teacher.

Technique No. I

Beginning a Relationship

1. Be sure and get administrative approval. Your school administrators and boards of education must be thoroughly orientated and understand the self-appraisal process. The success of the program depends upon their support and cooperation. Agreements must be worked out before any work commences with the teachers. These agreements include: acceptance of the program; scheduling of teachers to be taped, scheduling the training sessions, and scheduling the self-appraisal sessions. Agreements also must include teacher permission or non-permission for others to view her tape.

2. The Co-operator (see definition) is a collaborator. He collaborates with the teacher in the process of self-awareness, new focus, and the gaining of new and different perceptions of the teachers' teaching situation and teaching tasks. This process goes on in a special psychological climate - a climate at once intimate and objective. It is intimate insofar as the teacher has freedom to express his point of view. It is objective in the sense that his point of view is examined and clarified. The self-appraisal role is thus a new one in the experience of the teacher. It is different from the principal or supervisor role, for a wider latitude of self-expression on the teacher's part is tolerated. There is an additional component - the teacher's feelings and professional techniques. The assumption in the self-appraisal process is that the teacher and co-operator examine and clarify feelings and professional techniques in order to increase the teachers ability to become aware of what he is doing, how it relates to the self-appraisal instrument data, the demonstrations tapes, and then how he can modify his behavior in terms of pupil intended outcomes.

Two types of relationships are necessary for the co-operator. One type is the relationship of video tape technician where the co-operator makes the video tape of the teacher. (This may be done by another however we reserve this job for the professional for this guide). The first taping session is a crucial one.

Students are abnormal - teacher is apprehensive and under stress. The co-operator must have the complete and unequivocal acceptance of the teacher and must be as unconcerned with the abnormality as possible. The taping session is conducted, completed, tape is shown immediately back to the students and teacher (if requested) and the co-operator immediately moves equipment and self out of the room. The second relationship is that of actual self-appraisal assisting. In this meeting, the co-operator and the teacher assess each other - take measure of each other. In some way, the teacher asks himself: "Who is this guy? What is his purpose as far as I'm concerned? What will be my relationship with him? Will he be able to assist me in improving my teaching?"

The co-operator will in turn ask himself: "Is this someone with whom I can work?" Has he benefited from his training enough to understand the self-appraisal instrument? These reactions may be lasting and determinative of the future relationships that follow. They may vitally affect the way the teacher will modify his behavior. It is no wonder, then, that the first taping and the first tape self-analysis is stressed as being the most important as well as difficult.

Definition: Co-operator; The professional person who assists the teacher in the process of self-appraisal. For our purposes he is also the technician who tapes the teacher with the video instant replay equipment.

Technique No. II

A Collaborative Relationship

The vehicle for the modification of teacher behavior is a process: Understanding and developing skill in the use of the self-appraisal instrument, observing demonstration tapes depicting the categories of the instrument, utilizing the instrument in analyzing his own video-tape of a teaching situation and the face-to-face situation with the co-operator.

The face-to-face situation is a special kind of dialogue. Together, the teacher and the co-operator observe the teacher's video tape. The teacher marks the instrument cards, the co-operator gives direct and/or indirect reinforcement, and assists in sharpening focus.

This technique is to allow the teacher to express himself as freely as possible. How he does this depends on the perceptions he has of himself and others. A particular teacher addresses himself to a particular problem, which he seeks to explore in a particular way, with particular outcomes in mind. He may be aware, optimistic, co-operative. He may ask openly for help. He may be discouraged, pessimistic, extremely dependent. He may be openly antagonistic to the idea of help and deny that he needs it, although in the eyes of others he is perceived to be in such need. He may be guarded and unable to state his need of help openly, and therefore come to the co-operator with a pretext, a facade.

The problems as they are observed at the outset of the observation are the problems that the teacher is able to acknowledge at the time; they may not represent his major concerns. This particularity is related to the percepts and constructs an individual has about the teaching philosophy in which he works. The way he constructs his reality and the percepts he has of himself determine the way he addresses himself to his teaching tasks and the goals he formulates for his teaching tasks. It is important, therefore, that the co-operator allow the person with whom he is to work, freedom in self-expression as well as expression of self in relation to their objectives and intended pupil outcomes.

Technique No. III

The Self-Help Technique

The technique of self-help goes on in a special climate. It is called empathy. The crucial factor in the success of modifying teacher behavior is the ability of the co-operator to communicate to the teacher acceptance of his understandings of the objectives, methods, expressions and point of view. The climate of self-help may be described as the ability of the co-operator to place himself in the "teacher's shoes". The teacher then feels free to assist himself. He becomes aware and begins to understand the process of improvement.

Technique No. IV

Establishing Rapport

Rapport is defined as "a comfortable and unconstrained relationship of mutual confidence between two or more persons". Rapport is one aspect of the mutuality of co-operator-teacher relationship. It evolves from the relationship. It is not something that can be established first.

THE STRUCTURE OF THE TEACHER SELF-APPRAISAL PROCESS

1. Teachers attend twelve intermittent hours of instructional training based on four three-hour modules. During this training session, the classification of educational objectives, cognitive, affective and psychomotor are explored. The self-appraisal instrument is introduced and application of the use of the instrument is started. The teacher applies her knowledge of the use of the instrument by analyzing demonstration tapes provided during sessions.

2. Following the training sessions, teachers volunteer for video taping of their own teaching. The video tape equipment is moved into her classroom. Video taping commences as soon as the class begins, or when the teacher gives a signal to the technician, (who we suggest be the professional co-operator). The length of the taping for most practical purposes may cease at the completion of 20 minutes. This enables immediate playback to students and teacher which in the beginning will most likely be the request of the teacher.

3. It is strongly suggested that the co-operator and the teacher analyze her tape immediately after the class is over to provide maximum benefit to the teacher. However, there are circumstances that will prohibit the immediate analysis and if this prevails one can only recommend that it be done as soon as possible.

The co-operator and the teacher together in a private room review the tape of the teacher following the suggested code for tape review and the techniques for self-appraisal.

4. Repeated tapings should delimit the assistance of the co-operator; however, he should always be available in case the teacher should require help.

5. After the deck of self-appraisal cards have been marked by the teacher, a quick flip of the ends of the deck will give a general idea of the patterns within the categories. A teacher may want this immediate information. Data processing is utilized however, to prepare the print-out depicting the frequencies of markings in each category. These print-outs should be made available to the teacher as soon as possible.

PART IV

VIDEO TAPE HINTS

Video taping a teacher in her class room poses some unique problems. Some suggestions may be helpful to those who experience video taping a teacher for the first time.

DO

1. Schedule taping sessions in advance.
2. Set equipment up before class commences.
3. Test equipment before taping (especially microphones).
4. Place window openings behind your taping objects.
5. Clean heads of video recorder every day.
6. Watch carefully for over-sensitivity - - if noticed, move to other objects with camera and then return to teacher.
7. Follow instructions of teacher.
8. Respect the teacher's privacy.
9. Get written permission before showing her tape to anyone.
10. Study your video recorder equipment manual carefully and practice using your equipment before you tape your first teacher.

DON'T

1. Attempt to video tape agaist window openings.
2. Pan (swing camera back and forth) rapidly or too often.
3. Accept student invitation to distract from teacher objectives.
4. Over-use video tape.

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APPENDIX A

DEFINITIONS OF THE INSTRUCTIONAL AND INSTITUTIONAL VARIABLES

INSTRUCTIONAL VARIABLES

The Instructional Dimension describes the innovation in terms of specific variables. Each of these variables will be defined very briefly.

1. Organization is the matrix in which teachers and pupils are brought in order that instruction can take place. Time would be one component and refers to the duration and sequence of blocks of time devoted to the subjects taught. Another component would be space, which refers to vertical and horizontal organization of students. In vertical organization, schools may consider graded or non-graded classes, while in horizontal organization, schools may consider a self-contained classroom or departmentalization.

   Content is defined as that structure or body of knowledge which is identified with the subject matter of a discipline and controls its inquiries.

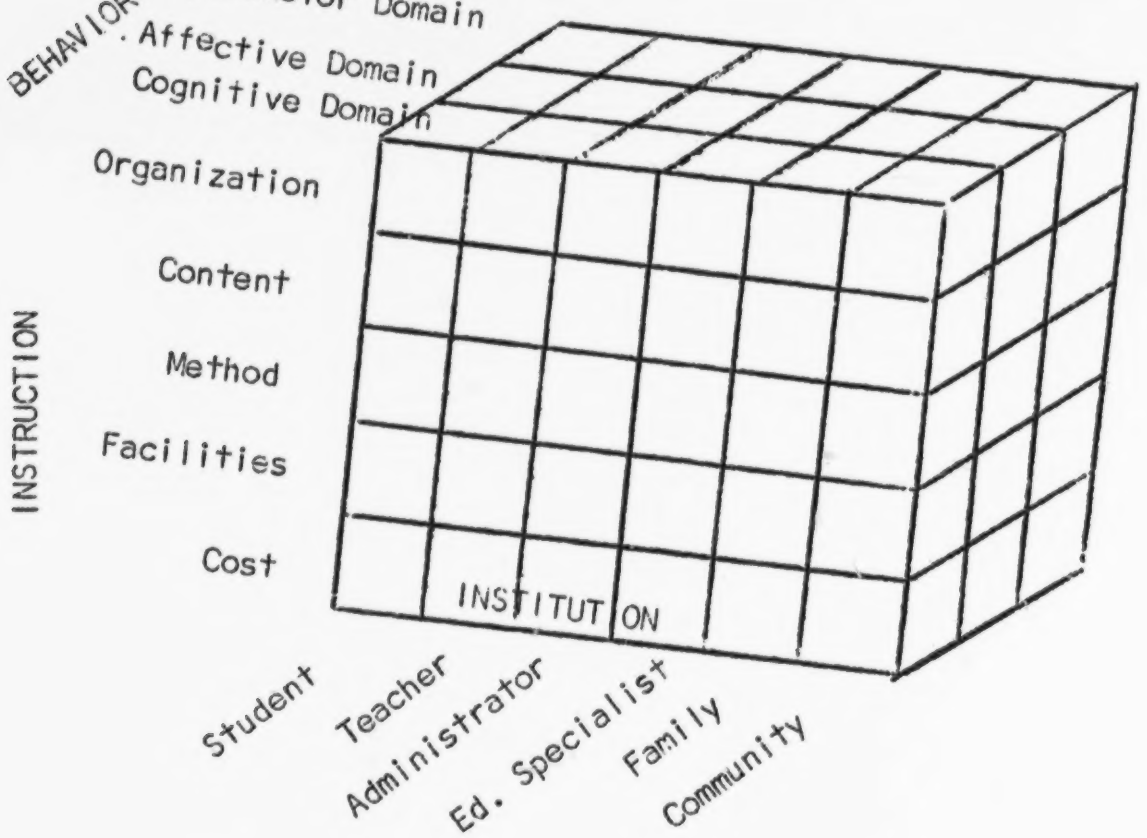
   Methodology is that process designed to facilitate learning. It may be divided into three levels: teaching activities, types of interaction, and learning principles or theories utilized.

   Facilities is defined as that space, special equipment, and expendables needed to spport an educational program.

   Cost is the money required for facilities, maintenance, and personnel to accomplish a given task.

INSTITUTIONAL VARIABLES

1. Student
2. Teacher
3. Administrator
4. Educational Specialist
5. Family
6. Community



APPENDIX B

Program Goals and Objectives are included in this section merely to illustrate different goals and objectives developed and written by teachers and administrators currently utilizing EPIC services to evaluate their instructional programs. These goals and objectives are not meant to be perfect examples or models, they merely express the uniqueness of the particular program and the way the teacher or administrator attempts to define his objectives.

READING

Goal: To develop increased word recognition skills in students.

Program Objective: The student will increase his ability to recognize words through utilization of individualized instruction as measured by the Silvarolis' Reading Inventory.

Goal: To develop improved student attitudes toward reading.

Program Objective: Through individualized instruction, the student will improve his attitude toward reading by exhibiting a willingness to read as measured by the Ebert's Reading Attitude Inventory.

Goal: Students will achieve in reading.

Program Objective: Students, when using programmed learning materials published by Winston-Burdett, will know a predetermined number of concepts as determined by a test designed by the teachers in this program.

MATHEMATICS

Goal: Students participating in an individualized mathematics program will achieve better than students participating in a traditional mathematics program.

Program Objective: Students participating in a fifth grade mathematics program emphasizing the individualized approach to teaching will develop application of fifth grade mathematical skills as indicated by their scores on an SRA Modern Mathematics Achievement Test.

Goal: Students participating in an individualized mathematics program will develop more positive attitudes toward mathematics than students in a traditional mathematics program.

Program Objective: Students participating in a fifth grade mathematics program emphasizing the individualized approach to teaching will respond positively toward fifth grade mathematics as indicated by their response to a teacher-designed attitude scale.

TEACHER TRAINING

Goal: The intern will develop a positive attitude toward teaching in elementary school.

Program Objective: The intern participating in the Duo Specialist Project will respond positively toward selected concepts relating to teaching in the elementary school on the semantic differential test designed by the EPIC Evaluation Center representatives.

Goal: The student participating in a flexibly-scheduled curriculum will develop positive attitudes toward the total school environment.

Program Objective: The student participating in a flexibly-scheduled curriculum will respond positively toward the total school environment as indicated by his score on the Bell School Inventory.

ENGLISH/SOCIAL STUDIES

Goal: To develop a positive attitude toward school.

Program Objective: The student will demonstrate a positive attitude toward the teacher as measured by a semantic inventory scale.

Program Objective: The student will demonstrate a positive attitude toward school organization as measured by attendance, observations, and attitude inventory.

Goal: To demonstrate improvement in scholastic achievement.

Program Objective: The student will improve his ability to comprehend printed material as measured by teacher observation and tests.

Program Objective: The student will improve his knowledge of social studies as measured by the Stanford Achievement Test and grades.

HIGH SCHOOL ALGEBRA

Goal: To develop a greater understanding and positive attitude toward mathematics.

Program Objective: The student will be able to define mathematical vocabulary words as measured by electronic teaching machines.

Program Objective: To increase the student's accuracy and efficiency in the application of mathematical concepts in the solution of algebraic problems as measured by free response teaching machines.

Program Objective: The student will develop a positive attitude toward mathematics as measured by teacher observation.

ELEMENTARY SCIENCE

Goal: To build a better attitude toward science through pupil involvement in as many science-related activities as possible.

Program Objective: The students will develop positive responses toward certain science concepts and activities as determined by a semantic differential scale.

Program Objective: The student, when given a free choice between humanistic and mechanistic science activities, will respond by selecting the humanistic science activities as determined by records of types of science projects and observations of individual activities during free choice periods.

Program Objective: The student, when given the choice between a democratic climate as opposed to an autocratic process, the student will choose the democratic climate, as determined by sharing ideas in discussions.

ELEMENTARY GUIDANCE

Goal: To demonstrate a shift in classroom management.

Program Objective: Teachers will demonstrate their willingness to shift in classroom procedures as defined by coded audio tape responses of teacher-student interaction, identified by category 3 (accepting and using student ideas) of Flanders' Interaction Analysis System.

1. behavioral variable - Affective (response)
2. instructional variable - Method (teacher-student interaction)
3. institutional variable - Teacher
4. measurement - category 3, Flanders' Interaction Analysis System

TEACHER IN-SERVICE

Goal: Teachers will develop a better attitude toward disadvantaged students

Program Objective: Teachers participating in the Teacher Self-Appraisal Inservice Program will demonstrate a better attitude toward disadvantaged students in the classroom as demonstrated by the video taped teacher-student interaction and as coded by Flanders' Interaction Analysis System (categories 1, 2, 3) and the Roberson System for Self Appraisal (verbal and non-verbal receptive expressions).

1. behavioral variable - Affective (attitude response)
2. instructional variable - Method (teacher-student interaction)
3. institutional variable - Teacher
4. measurement - Flanders' Interaction Analysis
   Roberson's System for Self-Appraisal

APPENDIX C

Detailed explanations of the categories of the Taxonomy.

COGNITIVE DOMAIN

KNOWLEDGE

1:00 KNOWLEDGE

Knowledge, as defined here, involves the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure, or setting. For measurement purposes, the recall situation involves little more than bringing to mind the appropriate material. Although some alteration of the material may be required, this is a relatively minor part of the task. The knowledge objectives emphasize most the psychological processes of remembering. The process of relating is also involved in that a knowledge test situation requires the organization and reorganization of a problem such that it will furnish the appropriate signals and cues for the information and knowledge the individual possesses. To use an analogy, if one thinks of the mind as a file, the problem in a knowledge test situation is that of finding in the problem or task the appropriate signals, cues, and clues which will most effectively bring out whatever knowledge is filed or stored.

1.10 KNOWLEDGE OF SPECIFICS

The recall of specific and isolable bits of information. The emphasis is on symbols with concrete referents. This material, which is at a very low level of abstraction, may be thought of as the elements from which more complex and abstract forms of knowledge are built.

1.11 KNOWLEDGE OF TERMINOLOGY

Knowledge of the referents for specific symbols (verbal and non-verbal). This may include knowledge of the most generally accepted symbol referent, knowledge of the variety of symbols which may be used for a single referent, or knowledge of the referent most appropriate to a given use of a symbol.

* To define technical terms by giving their attributes, properties, or relations.

  Familiarity with a large number of words in their common range of meanings.

1.12 KNOWLEDGE OF SPECIFIC FACTS

Knowledge of dates, events, persons, places, etc. This may include very precise and specific information such as the specific date or exact magnitude of a phenomenon. It may also include approximate or relative information such as an approximate time period or the general order of magnitude of a phenomenon.

* The recall of major facts about particular cultures.

* The possession of a minimum knowledge about the organisms studied in the laboratory.

1.20 KNOWLEDGE OF WAYS AND MEANS OF DEALING WITH SPECIFICS

Knowledge of the ways of organizing, studying, judging, and criticizing. This includes the methods of inquiry, the chronological sequences, and the standards of judgment within a field as well as the patterns of organization through which the areas of the fields themselves are determined and internally organized. This knowledge is at an intermediate level of abstraction between specific knowledge on the one hand and knowledge of universals on the other. It does not so much demand the activity of the student in using the materials as it does a more passive awareness of their nature.

1.21 KNOWLEDGE OF CONVENTIONS

Knowledge of characteristic ways of treating and presenting ideas and phenomena. For purposes of communication and consistency, workers in a field employ usages, styles, practices, and forms which best suit their purposes and/or which appear to suit best the phenomena with which they deal. It should be recognized that although these forms and conventions are likely to be set up on arbitrary, accidental, or authoritative bases, they are retained because of the general agreement or concurrence or individuals concerned with the subject, phenomena, or problem.

* Familarity with the forms and conventions of the major types of works, e.g., verse, plays, scientific papers, etc.

* To make pupils conscious of correct form and usage in speech and writing.

1.22 KNOWLEDGE OF TRENDS AND SEQUENCES

Knowledge of the processes, directions, and movements of phenomena with respect to time.

* Understanding of the continuity and development of American culture as exemplified in American life.

* Knowledge of the basic trends underlying the development of public assistance programs.

1.23 KNOWLEDGE OF CLASSIFICATIONS AND CATEGORIES

Knowledge of the classes, sets, divisions, and arrangements which are regarded as fundamental for a given subject field, purpose, argument, or problem.

* To recognize the area encompassed by various kinds of problems or materials.
* Becoming familiar with a range of types of literature.

1.24 KNOWLEDGE OF CRITERIA

Knowledge of the criteria by which facts, principles, opinions, and conduct are tested or judged.

* Familiarity with criteria for judgment appropriate to the type of work and the purpose for which it is read.
* Knowledge of criteria for the evaluation of recreational activities.

1.25 KNOWLEDGE OF METHODOLOGY

Knowledge of the methods of inquiry, techniques, and procedures employed in a particular subject field as well as those employed in investigating particular problems and phenomena. The emphasis here is on the individual's knowledge of the method rather than his ability to use the method.

* Knowledge of scientific methods for evaluating health concepts.
* The student shall know the methods of attack relevant to the kinds of problems of concern to the social sciences.

1.30 KNOWLEDGE OF THE UNIVERSALS AND ABSTRACTIONS IN A FIELD

Knowledge of the major schemes and patterns by which phenomena and ideas are organized. These are the large structures, theories, and generalizations which dominate a subject field or which are quite generally used in studying phenomena or solving problems. These are at the highest levels of abstraction and complexity.

1.31 KNOWLEDGE OF PRINCIPLES AND GENERALIZATIONS

Knowledge of particular abstractions which summarize observations of phenomena. These are the abstractions which are of value in explaining, describing, predicting, or in determining the most appropriate and relevant action or direction to be taken.

* Knowledge of the important principles by which our experiences with biological phenomena is summarized.

* The recall of major generalizations about particular cultures.

1.32 KNOWLEDGE OF THEORIES AND STRUCTURES

Knowledge of the body of principles and generalizations together with their interrelations which present a clear, rounded, and systematic view of a complex phenomenon, progiem, or field. These are the most abstract formulations, and they can be used to show the interrelation and organization of a great range of specifics.

* The recall of major theories about particular cultures.

* Knowledge of a relatively complete formulation of the theory of evolution.

INTELLECTUAL ABILITIES AND SKILLS

Abilities and skills refer to organized modes of operation and generalized techniques for dealing with materials and problems. The materials and problems may be of such a nature that little or no specialized and technical information is required. Such information as is required can be assumed to be part of the individual's general fund of knowledge. Other problems may require specialized and technical information at a rather high level such that specific knowledge and skill in dealing with the problem and the materials are required. The abilities and skills objectives emphasize the mental processes of organizing and reorganizing material to achieve a particular purpose. The materials may be given or remembered.

2;00 COMPREHENSION

This represents the lowest level of understanding. It refers to a type of understanding or apprehension such that the individual knows what is being communicated and can make use of the material or idea being communicated without necessarily relating it to other material or seeing its fullest implications.

2.10 TRANSLATION

Comprehension as evidenced by the care and accuracy with which the communication is paraphrased or rendered from one language or form of communication to the other. Translation is judged on the basis of faithfulness and accuracy, that is, on the extent to which the material in the original communication is preserved although the form of the commmunication has been altered:

* The ability to understand non-literal statements (metaphor, symbolism, irony, exaggeration).
* Skill in translating mathematical verbal material into symbolic statements and vice versa.

2.20 INTERPRETATION

The explanation or summarization of a communication. Whereas translation involves an objective part-for-part rendering of a communication, interpretation involves a reordering, rearrangement, or a new view of the material.

* The ability to grasp the thought of the work as a whole at any desired level of generality.
* The ability to interpret various types of social data.

2.30 EXTRAPOLATION

The extension of trends of tendencies beyond the given data to determine implications, consequences, corollaries, effects, etc., which are in accordance with the conditions described in the original communication.

* The ability to deal with the conclusions of a work in terms of the immediate inference made from the explicit statements.
* Skill in predicting continuation of trends.

3.00 APPLICATION

The use of abstractions in particular and oncrete situations. The abstractions may be in the form of general ideas, rules of procedures, or generalized methods. The abstractions may also be technical principles, ideas, and theories which must be remembered and applied.

* Application to the phenomena discussed in one paper of the scientific terms or concepts used in other papers.
* The ability to predict the probable effect of a change in a factor on a biological situation previously at equilibrium.

4.00 ANALYSIS

The breakdown of a communication into its constituent elements or parts such that the relative hierachy of ideas is made clear and/or the relations between the ideas expressed are made explicit. Such analyses are intended to clarify the communication, to indicate how the communication is organized, and the way in which it manages to convey its effects, as well as its basis and arrangement.

4.10 ANALYSIS OF ELEMENTS

Identification of the elements included in a communication.

* The ability to recognize unstated assumptions.

* Skill in distinguishing facts from hypotheses.

4.20 ANALYSIS OF RELATIONSHIPS

The connections and interactions between elements and parts of a communication.

* Ability to check the consistency of hypotheses with given information and assumptions.

* Skill in comprehending the interrelationships among the ideas in a passage.

4.30 ANALYSIS OF ORGANIZATIONAL PRINCIPLES

The organization, systematic arrangement, and structure which hold the communication together. This includes the "explicit" as well as "implicit" structure. It includes the bases, necessary arrangement, and the mechanics which make the ocmmunication a unit.

* The ability to recognize form and pattern in literary or artistic works as a means of understanding their meaning.

* Ability to recognize the general techniques used in persuasive materials, such as advertising, propaganda, etc.

5.00 SYNTHESIS

The putting together or elements and parts so as to form a whole. This involves the process of working with pieces, parts, elements, etc., and arranging and combining them in such a way as to constitute a pattern or structure not clearly there before.

5.10 PRODUCTION OF A UNIQUE COMMUNICATION

The development of a communication in which the writer or speaker attempts to convey ideas, feelings, and/or experiences to others.

* Skill in writing, using an excellent organization of ideas and statements.

* Ability to tell a personal experience effectively.

5.20 PRODUCTION OF A PLAN, OR PROPOSED SET OF OPERATIONS

The development of a plan of work or the proposal of a plan of operations. The plan should satisfy requirements of the task which may be given to the student or which he may develop for himself.

* Ability to propose ways of testing hypotheses.

* Ability to plan a unit of instruction for a particular teaching situation.

5.30 DERIVATION OF A SET OF ABSTRACT RELATIONS

The development of a set of abstract relations either to classify or explain particular data or phenomena, or the deduction of propositions and relations from a set of basic propositions or symbolic representations.

* Ability to formulate appropriate hypotheses based upon an analysis of factors involved, and to modify such hypotheses in the light of new factors and considerations.

* Ability to make mathematical discoveries and generalizations.

6.00 EVALUATION

Judgments about the value of material and methods for given purposes. Quantitative and qualitative judgments about the extent to which material and methods satisfy criteria. Use of a standard of appraisal. The criteria may be those determined by the student or those which are given to him.

6.10 JUDGMENTS IN TERMS OF INTERNAL EVIDENCE

Evaluation of the accuracy of a communication from such evidence as logical accuracy, consistency, and other internal criteria.

* Judging by internal standards, the ability to assess general probability of accuracy in reporting facts from the care given to exactness of statement, documentation, proof, etc.

* The ability to indicate logical fallacies in arguments.

6.20 JUDGMENTS IN TERMS OF EXTERNAL CRITERIA

Evaluation of material with reference to selected or remembered criteria.

* The comparison of major theories, generalizations, and facts about particular cultures.

* Judging by external standards, the ability to compare a work with the highest known standards in its field - expecially with other works of recognized excellence.

AFFECTIVE DOMAIN

1.0 RECEIVING (ATTENDING)

At this level we are concerned that the learner be sensitized to the existence of certain phenomena and stimuli; that is, that he be willing to receive or to attend to them. This is clearly the first and crucial step if the learner is to be properly oriented to learn what the teacher intends that he will. To indicate that this is the bottom rung of the ladder, however, is not at all to imply that the teacher is starting de novo. Because of previous experience (formal or informal), the student brings to each situation a point of view or set which may facilitate or hinder his recognition of the phenomena to which the teacher is trying to sensitize him.

The category of Receiving has been divided into three subcategories to indicate three different levels of attending to phenomena. While the division points between the subcategories are arbitrary, the subcategories do represent a continuum. From an extremely passive position or role on the part of the learner, where the sole responsibility for the evocation of the behavior rests with the teacher - that is, the responsibility rests with him for "capturing" the student's attention - the continuum extends to a point at which the learner directs his attention, at least at a semiconscious level, toward the preferred stimuli.

1.1 AWARENESS

Awareness is almost a cognitive behavior. But unlike Knowledge, the lowest level of the cognitive domain, we are not so much concerned with a memory of, or ability to recall, an item or fact as we are that, given appropriate opportunity, the learner will merely be conscious of something - that he take into account a situation, phenomenon, object, or stage of affairs. Like Knowledge it does not imply an assessment of the qualities or nature of the stimulus, but unlike Knowledge it does not necessarily imply attention. There can be simple awareness without specific discrimination or recognition of the objective characteristics of the object, even though these characteristics must be deemed to have an effect. The individual may not be able to verbalize the aspects of the stimulus which cause the awareness.

* Develops awareness of aesthetic factors in dress, furnishings, architecture, city design, good art, and the like.

* Develops some consciousness of color, form, arrangement, and design in the objects and structures around him and in descriptive or symbolic representations of people, things, and situations.

1.2 WILLINGNESS TO RECEIVE

In this category we have come a step up the ladder but are still dealing with what appears to be cognitive behavior. At a minimum level, we are here describing the behavior of being willing to tolerate a given stimulus, not to avoid it. Like Awareness, it involves a neutrality or suspended judgment toward the stimulus. At this level of the continuum the teacher is not concerned that the student seek it out, nor even, perhaps, that in an environment crowded with many other stimuli the learner will necessarily attend to the stimulus. Rather, at worst, given the opportunity to attend in a field with relatively few competing stimuli, the learner is not actively seeking to avoid it. At best, he is willing to take notice of the phenomenon and give it his attention.

* Attends (carefully) when other speak - indirect conversation, on the telephone, in audiences.

* Appreciation (tolerance) of cultural patterns exhibited by individuals from other groups - religious, social, political, economic, national, etc.

* Increase in sensitivity to human need and pressing social problems.

1.3 CONTROLLED OR SELECTED ATTENTION

At a somewhat higher level we are concerned with a new phenomenon, the differentiation of a given stimulus into figure and ground at a conscious or perhaps semiconscious level - the differentiation of aspects of a stimulus which is perceived as clearly marked off from adjacent impressions. The perception is still without tension or assessment, and the student may not know the technical terms or symbols with which to describe it correctly or precisely to others. In some instances it may refer not so much to the selectivity of attention as to the control of attention, so that when certain stimuli are present they will be attended to. There is an element of the learner's controlling the attention here, so that the favored stimulus is selected and attended to despite competing and distracting stimuli.

* Listens to music with some discrimination as to its mood and meaning and with some recognition of the contributions of various musical elements and instruments to the total effect.

* Alertness toward human values and judgments on life as they are recorded in literature.

2.0 RESPONDING

At this level we are concerned with responses which go beyond merely attending to the phenomenon. The student is sufficiently motivated that he is not just 1.2 Willing to attend, but perhaps it is correct to say that he is actively attending. As a first stage in "learning by doing" process the student is committing himself in some small measure to the phenomena involved. This is a very low level of commitment, and we would not say at this level that this was "a value of his" or that he had "such and such attitude." These terms belong to the next higher level that we describe. But we could say that he is doing something with or about the phenomenon besides merely perceiving it, as would be true at the next level below this of 1.3 Controlled or selected attention.

This is the category that many teachers will find best describes their "interest" objectives. Most commonly we use the term to indicate the desire that a child become sufficiently involved in or committed to a subject, phenomenon, or activity that he will seek it out and gain satisfaction from working with it or engaging in it.

2.1 ACQUIESCENCE IN RESPONDING

We might use the word "obedience" or "compliance" to describe this behavior. As both of these terms indicate, there is a passiveness so far as the initiation of the behavior is concerned, and the stimulus calling for this behavior is not subtle. Compliance is perhaps a better term than obedience, since there is more of the element of reaction to a suggestion and less of the implication of resistance or yielding unwillingly. The student makes the response, but he has not fully accepted the necessity for doing so.

* Willingness to comply with health regulations.
* Obeys the playground regulations.

2.2 WILLINGNESS TO RESPOND

The key to this level is in the term "willingness," with its implication of capacity for voluntary activity. There is the implication that the learner is sufficiently committed to exhibiting the behavior that he does so not just because of fear of punishment, but "on his own" or voluntarily. It may help to note that the element of resistance or of yielding unwillingly, which is possibly present at the previous level, is here replaced with consent or proceeding from one's own choice.

* Acquaints himself with significant current issues in international, political, social, and economic affairs through voluntary reading and discussion.
* Acceptance of responsibility for his own health and for the protection of the health of others.

2.3 SATISFACTION IN RESPONSE

The additional element in the step beyond the Willingness to respond level, the consent, the assent to responding, or the voluntary response, is that the behavior is accompanied by a feeling of satisfaction, an emotional response, generally of pleasure, zest, or enjoyment. The location of this category in the hierarchy has given us a great deal of difficulty. Just where in the process of internalization the attachment of an emotional response, kick, or thrill to a behavior occurs has been hard to determine. For that matter there is some uncertainty as to whether the level of internalization at which it occurs may not depend on the particular behavior. We have even questioned whether it should be a category. If our structure is to be a hierarchy, then each category should include the behavior in the next level below it. The emotional component appears gradually through the range of internalization categories. The attempt to specify a given position in the hierarchy as the one which the emotional component is added is doomed to failure.

The category is arbitrarily placed at this point in the hierarchy where it seems to appear most frequently and where it is cited as or appears to be an important component of the objectives at this level on the continuum. The category's inclusion at this point serves the pragmatic purpose of reminding us of the presence of the emotional component and its value in the building of affective behaviors. But it should not be thought of as appearing and occuring at this one point in the continuum and thus destroying the hierarchy which we are attempting to build.

* Enjoyment of self-expression in music and in arts and crafts as another means of personal enrichment.
* Finds pleasure in reading for recreation.
* Takes pleasure in conversing with many different kinds of people.

3.0 VALUING

This is the only category headed by a term which is in common use in the expression of objectives by teachers. Further, it is employed in its usual sense: that a thing, phenomenon, or behavior has worth. This abstract concept of worth is in part a result of the individual's own valuing or assessment, but it is much more a social product that has been slowly internalized or accepted and has come to be used by the student as his own criterion of worth.

Behavior categorized at this level is sufficiently consistent and stable to have taken on the characteristics of a belief or an attitude. The learner displays this behavior with sufficient consitency in appropriate situations that he comes to be perceived as holding a value. At this level, we are not concerned with the relationships among values but rather with the internalization of a set of specified, ideal, values. Viewed from another standpoint, the objectives classified here are the prime stuff from which the conscience of the individual is developed into active control of behavior.

This category will be found appropriate for many objectives that use the term 'attitude" (as well as, of course, "value").

An important element of behavior characterized by Valuing is that it is motivated, not by the desire to comply or obey, but by the individual's commitment to the underlying value guiding the behavior.

3.1 ACCEPTANCE OF A VALUE

At this level we are concerned with the ascribing of worth to a phenomenon, behavior, object, etc. The term "belief," which is defined as "the emotional acceptance of a proposition or doctrine upon what one implicitly considers adequate ground" (English and English, 1958, p. 64), describes quite well what may be thought of as the dominant characteristic here. Belief have varying degrees of certitude. At this lowest level of Valuing we are concerned with the lowest levels of certainty; that is , there is more of a readiness to re-evaluate one's position than at the higher levels. It is a position that is somewhat tentative.

One of the distinguishing characteristics of this behavior is consistency of response to the class of objects, phenomena, etc. with which the belief or attitude is identified. It is consistent enough so that the person is perceived by others as holding the belief or value. At the level we are describing here, he is both sufficiently consistent that others can identify the value, and sufficiently committed that he is willing to be so identified.

* Continuing desire to develop the ability to speak and write effectively.
* Grows in his sense of kinship with human beings of all nations.

3.2 PREFERENCE FOR A VALUE

The provision for this subdivision arose out of a feeling that there were objectives that expressed a level of internalization between the mere acceptance of a value and commitment or conviction in the usual connotation of deep involvement in an area. Behavior at this level implies not just the acceptance of a value to the point of being willing to be identified with it, but the individual is sufficiently committed to the value to pursue it, to seek it out, to want it.

* Assumes responsibility for drawing reticent members of a group into conversation.

* Deliberately examines a variety of viewpoints on controversial issues with a view to forming opinions about them.

* Actively participates in arranging for the showing of contemporary artistic efforts.

3.3 COMMITMENT

Belief at this level involves a high degree of certainty. The ideas of "conviction" and " ertainty beyond a shadow of a doubt" help to convey further the level of behavior intended. In some instances this may border on faith, in the sense of it being a firm emotional acceptance of a belief upon admittedly nonrational ground. Loyalty to a position, group, or cause would also be classified here.

The person who displays behavior at this level is clearly perceived as holding the value. He acts to further the thing valued in some way, to extend the possibility of his developing it, to deepen his involvement with it and with the things representing it. He tries to convince others and seeks converts to his cause. There is a tension here which needs to be satisfied; action is the result of an aroused need or drive. There is a real motivation to act out the behavior.

* Devotion to those ideas and ideals which are the foundations of democracy.

* Faith in the power of reason and in methods of experiment and discussion.